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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

20 September 1983

Mr. Brian V. Kinney
Chief, Declassification and
Historical Research Branch
Records Management Division
Washington Headquarters Services
Department of Defense
Room 1D517, Pentagon
Washington, D.C. 20301

Dear Mr. Kinney:

Mr. E. E. Lowry's memorandum of 30 August 1983 forwarded to us one document with the request that we review its classification status. We have reviewed the document with the following result:

It is a CIA memorandum for the Assistant Secretary of Defense (R&D) from CIA Assistant Director H. Marshall Chadwell, dated 8 November 1954, classified SECRET. We have determined that the document must remain classified, but we have downgraded it to CONFIDENTIAL under Section 1.3(a)(4) of Executive Order 12356.

The document is returned to you herewith as requested. We have added our classification review stamp showing our action.

Sincerely,

[redacted] 25X1

Chief, Classification Review Division
Office of Information Services
Directorate of Administration

Enclosure

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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

NOV 8 1954

MEMORANDUM FOR: Assistant Secretary of Defense (R&D)

SUBJECT : Infrared research being performed by Dr. R. V. Jones of the University of Aberdeen.

1. You may be interested in knowing of the infrared research activities of Dr. R. V. Jones of the University of Aberdeen, Scotland. I do not know if the Research and Development people in this country are familiar with this work, but since I have been informed that it may have interesting consequences with regard to the development of an image converter sensitive to wavelengths out to five or six microns, I am passing the information along to you. I understand that such a development would be highly useful for the passive detection (and image presentation) of such military targets as aircraft and tanks.

2. Dr. Jones' work is concerned with the infrared transmission characteristics of galena (lead sulfide) crystals. Most specimens of galena are completely opaque throughout the infrared region, but a few years ago Dr. Jones discovered that occasionally a very pure specimen can be found which, although opaque up to a wave length of about three microns, becomes transparent at longer wave lengths. The characteristic of good cleavage surfaces has proved to be of some value in indicating whether or not a particular specimen of galena is likely to show infrared transparency. Even then, only a small proportion of specimens that show good cleavage properties also turn out to be infrared - transparent. Dr. Jones hopes by further work on this material to gain more clues concerning the nature of the photoconductive process in lead sulfide.

3. Dr. Jones' work is doubly interesting since two Soviet physicists, L. N. GALKIN and N. V. KOROLEV, have recently published the results of some experimentation with lead sulfide [see "Photoluminescence of PbS in the Infrared," Doklady Akademii Nauk SSR, Vol. 92, #3, pp. 529-530 (1953)] which would appear to be along lines somewhat similar to that taken by Dr. Jones. We have not been able to determine to date just what priority the GALKIN-KOROLEV work may have in the USSR.

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4. For your information, we now have in preparation a paper which will round up what information is available concerning Soviet Bloc infrared work.

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Assistant Director

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